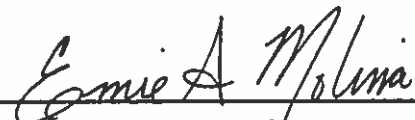



FEASIBILITY STUDY

Cary
SR 1415 (Maynard Road)
from SR 1497 (Cary Towne Boulevard)
to SR 1011 (East Chatham Street)
Wake County
FS 91-92-005

Prepared by
Program Development Branch
Division of Highways
N.C. Department of Transportation


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Date

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I. GENERAL DESCRIPTION

This is a feasibility study for the widening of SR 1415 (Maynard Road) from SR 1497 (Cary Towne Blvd.) to SR 1011 (East Chatham Street), a distance of approximately 1.1 miles. The studied roadway is located in Cary, Wake County (See Figure 1). The recommended typical cross-section is a five-lane, 68-foot curb and gutter section on 100-feet of right-of-way. The estimated cost of the project is \$1,900,000 (\$1,000,000 for right-of-way and \$900,000 for construction).

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended cross sections for improvements, general alignments of improvements, and estimated cost of construction and right-of-way. This study attempts to identify any potential environmental, permitting, or other observed issues which deserve consideration in the planning and construction stages.

II. NEED FOR PROJECT

This project was requested by the Town of Cary. SR 1415 (Maynard Rd.) is included as a Major Thoroughfare in the mutually adopted 1986 Greater Raleigh Urban Area Thoroughfare Plan. It is classified as a Minor Arterial in the Statewide Functional Classification System and is part of the Federal Aid System (FAU-5799).

The studied section of existing SR 1415 (Maynard Rd.) consists of a two to three-lane road with pavement width varying from 25 to 69 feet with 4 to 6-foot shoulders. Right-of way width along the studied section varies from 60 to 80 feet, with no control of access.

The studied section of Maynard Road is located on the east side of Cary and is part of the circumferential route around Cary as shown on the 1986 Greater Raleigh Urban Area Thoroughfare Plan. This section of SR 1415 serves as a thoroughfare for commuters traveling to Cary Village Square Shopping Center, for students traveling to East Cary Junior High School, and for a local fire station.

The southern terminal of the recommended improvements is located at the signalized intersection of SR 1415 (Maynard Rd.) and SR 1497 (Cary Towne Blvd.). At this location SR 1415 consists of a 69-foot curb and gutter section.

The northern terminal of the recommended improvements is at the signalized intersection of SR 1415 (Maynard Rd.) and SR 1011 (East Chatham St.). At this location SR 1415 consists of a two-lane, 41-foot curb and gutter section. From East Chatham Street, north to NC 54, Maynard Road consists of a five-lane, 60-foot curb and gutter section.

SR 1415 (Maynard Rd.) is on the Town of Cary's Master Bicycle Plan; therefore, the Town of Cary has requested wider outside travel lanes to accommodate bicycle traffic in this section.

Estimated 1991 Average Daily Traffic (ADT) on SR 1415 (Maynard Rd.) is 13,000 vehicles per day (vpd). By the design year of 2015, anticipated traffic is estimated at 22,000 vpd. Currently, there are sections of Maynard Road that are experiencing a Level Of Service (LOS) beyond D. The recommended improvement is needed to alleviate some of the existing traffic congestion and bring the Level Of Service to an acceptable level.

During the period from July 1989 to June 1992, a total of 82 accidents were reported on the studied portion of SR 1415 (Maynard Rd.). Of these 82 accidents, 15 accidents involved left turns across traffic, 8 involved angle collisions, and 36 involved rear-end collisions. The total accident rate for the studied roadway was 514.43 accidents per 100 million vehicle-miles, compared to a statewide accident rate for similar facilities of 340.33 accidents per 100 million vehicle-miles. The recommended improvements will lower the accident rate.

III. RECOMMENDATIONS

It is recommended that SR 1415 (Maynard Rd.) be widened to a five-lane , 68-foot curb and gutter section from SR 1497 (Cary Towne Blvd.) to SR 1011 (East Chatham St.) for a distance of 1.1 miles. The typical 68-foot section is to contain a middle 12-foot left-turn lane, two 12-foot inside lanes, and two 14-foot outer lanes to accommodate bicycle traffic. Widening should occur symmetrically and asymmetrically as determined to minimize adverse impacts. The existing alignment of SR 1415 should be retained and utilized to the extent possible. The new roadway is to be constructed on 100-feet of right-of-way with no control of access.

There currently exists approximately 4200 feet of curb and gutter on the west side of Maynard Road (SR 1415) which is to be maintained and employed to its fullest extent in the proposed project to reduce the project construction cost.

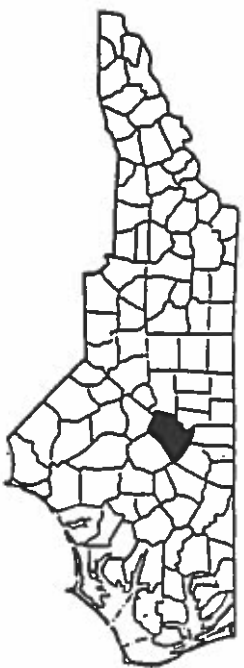
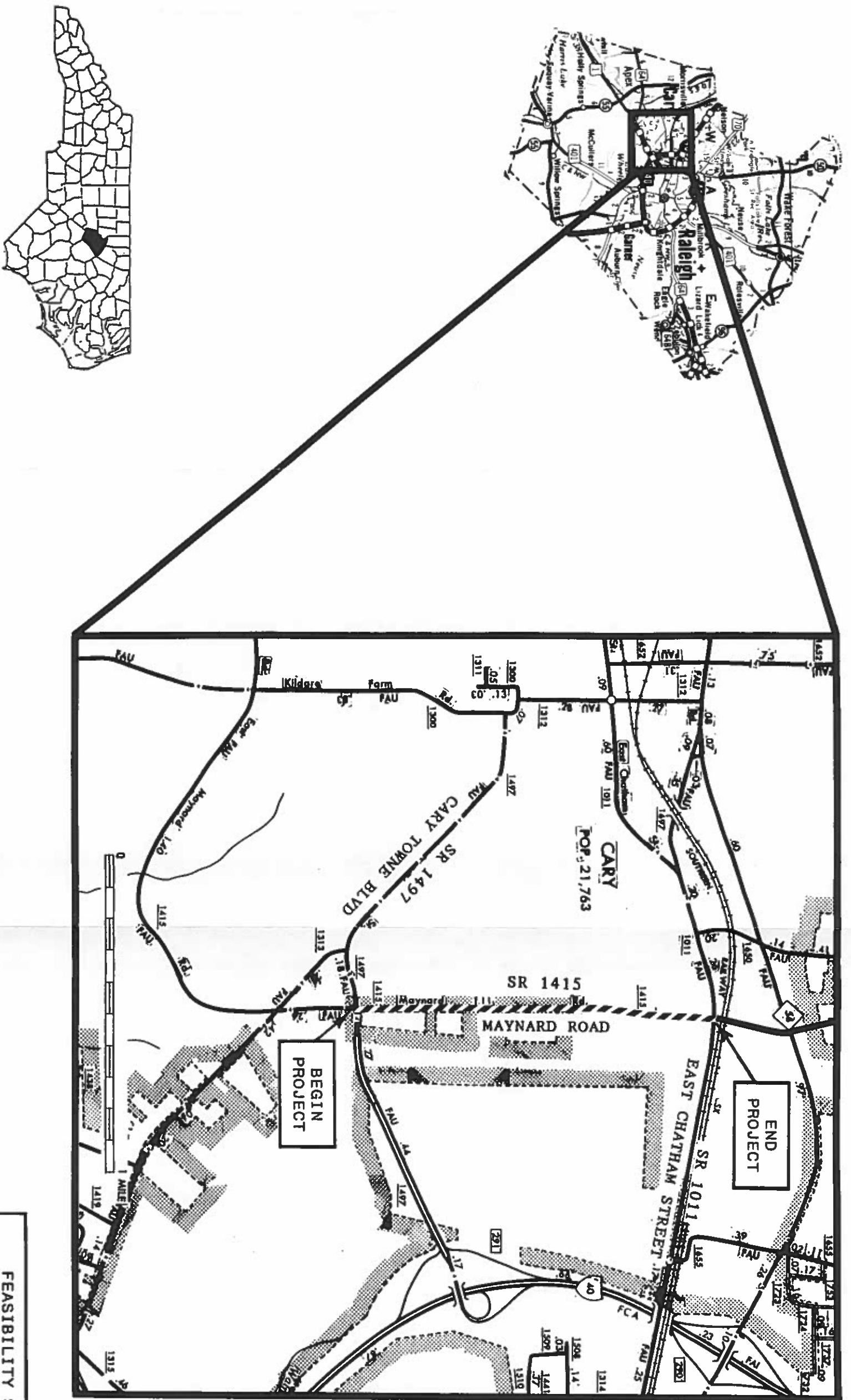
Total project cost is estimated at:

| | |
|--------------|--------------|
| Right-of-Way | \$ 1,000,000 |
| Construction | \$ 900,000 |
| Total Cost | \$ 1,900,000 |

IV. OTHER COMMENTS AND CONCERNS

This project will require the relocation of approximately six residences with no business relocations anticipated. The Town of Cary owns approximately one thousand linear feet of frontage, wooded land in the vicinity of Sloan Drive. This land faces the west side of Maynard Road and is available for use on the project.

This project report is written without the benefit of an environmental screening; however, there are no significant environmental problems anticipated with regard to the recommended improvements. No historical sites or public parks will be affected.



| FEASIBILITY STUDIES UNIT | |
|---------------------------------|----------|
| CARY | |
| SR 1415 (MAYNARD RD.) | |
| FROM SR 1497 (CARY TOWNE BLVD.) | |
| TO SR 1011 (EAST SHATHAM ST.) | |
| WAKE COUNTY | |
| FS 91-92-005 | |
| DIVISION 5 | FIGURE 1 |

